

Curriculum Vitae

Lidia Zofia Filus

Department of Mathematics
Northeastern Illinois University
5500 N. St. Louis Ave.
Chicago, IL 60068
(773)442-5784
L-Filus@neiu.edu

EDUCATION:

- 1979 Doctoral Degree in Mathematics, University of Warsaw, Poland
Dissertation: *A combinatorial approach to fixed point algorithms*
Advisor: Professor Jerzy Los
- 1971 M.S. Mathematics, University of Warsaw, Poland
M.S. Thesis: *Paley-Wiener type theorems*
Thesis Advisor: Professor Jan Kisynski

EMPLOYMENT & PROFESSIONAL AFFILIATIONS:

- 2013- present Chair, Department of Mathematics, Northeastern Illinois University, Chicago, IL
- Fall 2012 Acting Chair, Department of Mathematics, Northeastern Illinois University
- Nov. 2011 Visiting Professorship, Czestochowa University of Technology, Czestochowa, Poland (part of European Union Grant for strengthening and development of university curricula to increase the number of graduates majoring in science, engineering and mathematics)
- Nov. 1997 Visiting Professorship, Fern University, Hagen, Germany
- 1997-2000 Associate Dean, College of Arts and Sciences, Northeastern Illinois University
- 1996-1997 Acting Associate Dean, College of Arts and Sciences, Northeastern Illinois Univ.
- 1996 - present Professor of Mathematics, Northeastern Illinois University, Chicago, IL
- 1988-1996 Associate Professor, Department of Mathematics, Northeastern Illinois University
- 1985-1988 Assistant Professor, Department of Mathematics, Northeastern Illinois University

1982-1985	Instructor, Department of Mathematics, University of Kansas, Lawrence, Kansas
1980-1982	Visiting Research Fellow, Department of Applied Mathematics, Twente University of Technology (presently Twente University), Enschede, the Netherlands
1979-1980	Postdoctoral Research Fellow, Center for Operation Research and Econometrics, University of Louvain, Louvain-la-Neuve, Belgium
1979-1982	Assistant Professor, Department of Mathematics, Central School of Planning and Statistics (presently: Warsaw School of Economics), Warsaw, Poland
1971-1979	Instructor, Department of Mathematics, Central School of Planning and Statistics (presently: Warsaw School of Economics), Warsaw, Poland
Summer 1977	Research Fellow, Mathematics Research Center, University of Wisconsin-Madison
1975-77	Research Fellow, Dept. of Mathematical Methods in Economics, Computer Science Institute, Polish Academy of Sciences, Warsaw, Poland
Spring 1972	Fellow, International Semester on Mathematical Methods in Economics organized by the Polish Academy of Sciences in cooperation with UNESCO, Warsaw, Poland

TEACHING EXPERIENCE:

Service Courses: Statistics in Daily Life, Intermediate Algebra, Finite Mathematics, Business Calculus, Precalculus, College Algebra, Trigonometry

Undergraduate: Calculus, Linear Algebra, Discrete Mathematics, Number Theory, Foundation of Algebra, Probability and Statistics, Numerical Analysis, Real Analysis, Advanced Calculus-Single Variable, Operations Research, Linear Programming, Probabilistic Models in Operation Research, Independent Study: Risk Analysis

Graduate: Analysis, Linear Algebra, Mathematical Economics (Seminar), Introduction to Stochastic Models, Discrete Mathematics, Simulation, Mathematical Programming, Linear Programming and Extensions, Nonlinear Programming, Decision Theory, Groebner Bases (seminar), Independent Study Courses: Graph Theory, Variational Calculus, Risk Analysis, Fixed Point Algorithms, Game Theory, Differential Geometry

Directed Project Reports/Thesis for M.S. at Northeastern Illinois University

RESEARCH & GRANTS EXPERIENCE:

Research Interests

Fixed Point Algorithms and their Applications in Economics, Optimization, Game Theory
 Probabilistic Models in Operations Research, Mathematical Models in Reliability, Modeling of Complex Systems, Decision Theory, Risk Analysis

Publications

Author and co-author of many articles, numerous technical reports, co-editor of one book, co-author of one book and four book chapters, author of several book reviews, reviewer for several professional journals

Book

Stochastic Modeling, Data Analysis & Statistical Applications, Lidia Filus, Teresa Oliveira, Christos H. Skiadas (Eds), ISBN (print): 978-618-5180-08-9, ISBN (e-book): 978-618-5180-11-9, pp 554, ISAST 2015

Linear Algebra (with W. Dubnicki and H. Sosnowska), Polish Scientific Publishers (in Polish), 1986 (the book received an Award of the Ministry of Science and Higher Education, Poland)

Book Chapter

Chapter 8. On Parameter Dependence and Related Topics: The Impact of Jerzy Filus from Genesis to Recent Developments (with J.Filus, B.C. Arnold, P.K. Jordanova, L. Nunez Soza, Ying Lu, S. Stehlikova, M. Stehlik) in *Reliability Engineering: Theory and Applications*, I. Vonta & M. Ram (eds), CRC Press, Taylor & Francis Group, ISBN 13-978-0-8153-5517-5, 143-172, 2018
<https://books.google.com/books?isbn=1351130358>

FF-Type Multivariate Models in an Enforced Regression Paradigm (with J. Filus) in *Theory and Practice of Risk Assessment*, C.Kitsos, T.Oliveira, A.Rigas & S.Gulati (eds), Springer Proceedings in Mathematics & Statistics, Volume 136, 399-412, 2015

Chapter 19. New Stochastic Dependences Paradigm and its Reliability (with J. Filus) in *Engineering the Computer Sciences and IT*, IN-TECH Education and Publishing, Vienna, Austria, ISBN 978-953-7619-32-9, 365-380, 2009

Chapter 5. Some alternative approaches to system reliability modeling (with J. Filus) in *Recent Advances in Reliability and Quality Design*, H.Pham (ed.), Springer Series in Reliability Engineering, 101-135, 2008

Book Citation

S. Kotz, N. Balakrishnan and N. L. Johnson, *Continuous Multivariate Distributions*, Volume 1. Second Edition. J. Wiley & Sons, Inc, New York, 217-218, 2000.

Selected Recent Articles

Bivariate Probability Distributions, A Universal Form (with J. Filus), *AIP Proceedings*, Vol.1978, Issue 1, <https://doi.org/10.1063>, 460004-1 – 460004-4, 2018

Initiating a Translational Bio-Mathematics Research Seminar for Undergraduate Students (with E. Turian) in *Congres UPV 4th International Conference on Higher Education Advances (HEAd'18)*, J. Domenech, P. Merello, E. Poza, D. Blazquez (Eds.), Universitat Politecnica de Valencia, Valencia, Spain. 1341-1348. doi:10.4995/HEAD18.2018.8199, 2018

Women in Science: Chicago Honors the 150th birth anniversary of Marie Skłodowska-Curie (with C. Ciecierski, M. Maliszewska, M. Hines (short communication), *Journal of Health Inequalities* Vol. 3 (2): 172-173, Online publish date: 2017/12/30
DOI: <https://doi.org/10.5114/jhi.2017.74214>

The Cox-Aalen Models as Framework for Construction of Bivariate Probability Distributions, Universal Representation (with J. Filus), *Journal of Statistical Science and Application* 5, 56-63, 2017

New stochastic model applied in assessment of the financial distress (with J. Filus and Z. Krysiak), *Mathematical Finance Letters*, Vol 2015, Article ID 8, 2015

Parameter Dependence as ‘Weak Transformation; Method of Construction of Multivariate Probability Densities (with J. Filus), *Biometrie und Medizinische Informatik Greifswalder Seminarberichte*, Heft 23 *Statistical and Biometrical Challenges, Theory and Applications*, 133-147, 2014

Parameter Dependence in Stochastic Modeling – Multivariate Distributions (with J. Filus), *Applied Mathematics*, Vol.5, No. 6, 928-940, 2014

A Method for Multivariate Probability Distributions Construction via Parameter Dependence (with J. Filus), *Communications in Statistics - Theory and Methods*, Volume 42, Issue 4, 716-721, 2013

Recent Developments on Testing in Cancer Risk: A Fractal and Stochastic Geometry (with M. Stehlik, T. Mrkvicka, and J. Filus), *Journal of Reliability and Statistical Studies*, Vol. 5, 83-95, 2012

Multivariate “Pseudodistributions” as Natural Extensions of the Multivariate Normal Density Pattern – Theory (with J. Filus), *American Institute of Physics Conference Proceedings 1479, Numerical Analysis and Applied Mathematics*, 1417-1420, 2012

Multivariate “Pseudodistributions” Pattern – Applications (with J. Filus), *American Institute of Physics Conference Proceedings 1479, Numerical Analysis and Applied Mathematics*, 1421-1423, 2012

Pseudoexponential multivariate probability distributions for bio-medical modeling (with J. Filus), *Biometrie und Medizinische Informatik Greifswalder Seminarberichte*, Heft 18, 17-25, 2011

Bivariate Lognormal distribution model of risk factors of heart diseases (with E.Gutenko and J. Filus), *Biometrie und Medizinische Informatik Greifswalder Seminarberichte*, Heft 18, 41-58, 2011

Pseudoexponential models in medical trials: design, estimation and testing (with J. Filus, M. Stehlik), *Proceedings of the International Conference on Risk Analysis – ICRA4, Limassol, Cyprus*, ISBN 978-9963-9965-0-6, 75-83, 2011

Weak Stochastic Dependence in Biomedical Applications (with J. Filus), *American Institute of Physics Conference Proceedings 1281, Numerical Analysis and Applied Mathematics*, Vol. III, 1873-1876, 2010

Pseudoexponential and Semi-Pseudoexponential Models in Medical Prognostics (with J. Filus), *American Institute of Physics Conference Proceedings 1281, Numerical Analysis and Applied Mathematics*, Vol. III, 1877-1880, 2010

Conditionally Specified Multivariate Distributions in Biomedical Applications (with J. Filus), Proceedings of the 1st Conference on Applied Probability and Statistical Methods and the 7th Conference on Multivariate Distributions with Applications, Maresias, Brazil, August 8-13, 2010

Decision Processes in Universities and Colleges in the United States (with Janet Fredericks) in *Humanization of Work and Modern Tendencies in Management*, Czestochowa University of Technology Monograph, ISBN 978-83-61118-57-2, 115-123, 2010

Families of multivariate distributions involving “triangular” transformations (with J. Filus and B. Arnold), *Communications in Statistics - Theory and Methods*, Volume 39, Issue 1, 107-116, 2010

Pseudoexponential modeling of cancer diagnostic testing (with J. Filus and M. Stehlik), *Biometrie und Medizinische Informatik Greifswalder Seminarberichte*, Heft 15, 41-54, 2009

‘Microshocks-Microdamages’ Type of System Component Interaction; Failure Models (with J. Filus), Proceedings of the 15th ISSAT International Conference on Reliability and Quality in Design, ISBN 978-0-9763486-5-8, 24-29, 2009

Construction of new continuous stochastic processes (with J. Filus), *Pak. J. Statistics*, Vol. 24 (3), 227-251, 2008

On Multicomponent System Reliability with Microshocks – Microdamages Type of Components’ Interactions (with J. Filus), Proceedings of International Multi Conference of Engineers and Computer Scientists, Vol. 2. Lecture Notes in Engineering and Computer Science, 1946 –1951, Hong Kong, March 2008

Composite Reliability Models for Systems with Two Distinct Kinds of Stochastic Dependences between their Components Life Times (with J. Filus). Proceedings of the 14th ISSAT International Conference on Reliability and Quality in Design-ISBN: 978-0-9763486-4-1, 327-336, 2008

On new multivariate probability distributions and stochastic processes with systems reliability and maintenance applications (with J. Filus), *Methodology and Computing in Applied Probability Journal*, 9, 426-446, 2007

Stochastic Models for Mutual Physical Interaction in the System Reliability Framework (with J. Filus), Proceedings of the Thirteen ISSAT International Conference on Reliability and Quality in Design, 31-40, 2007

On Pseudonormal Extension of the Class of Multivariate Normal Probability Distributions (with J. Filus), *Communications in Dependability and Quality Management International Journal*, 10(1), 41-51, 2007

A Probabilistic Description of Continuous Micro-Shocks-Micro Damages Failure Phenomena (with J. Filus), MMR2007 Proceedings of Mathematical Methods in Reliability Conference, University of Strathclyde, Glasgow, 12 pp, July 2007

A Stochastic Model of Reliability of Systems with Continuously Dependent Components (with J. Filus), Proceedings of XII International Symposium on Applied Stochastic Models and Data Analysis (ASMDA2007), Christos H. Skiadas ed., 2007

On two new methods for constructing multivariate probability distributions with system reliability motivations (with J. Filus), Proceedings of the Twelfth ISSAT International Conference on Reliability and Quality in Design, 245-252, 2006

On Pseudonormal Extension of the Class of Multivariate Normal Probability Distributions (with J. Filus), BIOSTAT2006 Proceedings of the International Conference Statistical Methods for Biomedical and Technical Systems, 79-86, Limassol, Cyprus, 2006

On Some New Classes of Multivariate Probability Distributions (with J. Filus), *Pak.J.Statistics*, Vol. 22, No. 1, 21-42, 2006

On Two New Methods for Constructing Multivariate Probability Distributions with System Reliability Motivations (with J. Filus), Proceedings of XI International Symposium on Applied Stochastic Models and Data Analysis (ASMDA2005), 1232-1240, Brest, France, 2005

On Some Bivariate Pseudonormal Densities (with J. Filus), *Pak. J. Statist.*, Vol. 17, No. 1, 1-20, 2001
A Class of Generalized Multivariate Normal Densities (with J. Filus), *Pak. J. Statist.*, Vol. 16, No. 1, 11-32, 2000

Selected Prior Publications:

A Combinatorial Description of Some Methods of Computation of Fixed Points, *The Journal of Combinatorial Mathematics and Combinatorial Computing* 21, 25-31, 1996

Some Properties of a Generalized Sperner Labelling, *Combinatorial Mathematics and Combinatorial Computing* 1, 107-114, 1987

Fixed Point Algorithms and Some Graph Problems, *Numerical Solution of Highly Nonlinear Problems*, W. Foster (ed.), North Holland, Amsterdam, 241-249, 1980

Combinatorial Fixed Point Algorithms, *Game Theory and Related Topics*, O. Moeschlin and D. Pallaschke (eds), North Holland, Amsterdam, 165-172, 1979

A Combinatorial Lemma for Fixed Point Algorithms, *Nonlinear Programming* 3, O. Mangasarian, R.R. Meyer, and S.M. Robinson (eds.), Academic Press, New York, 407- 427, 1978

A Combinatorial Lemma Related to the Search of Fixed Points, *Bull. Acad. Polon. Sci. Ser. Sci. Math. Astron. Phys.* 7, 615-616, 1977

Computing Eigenvalues of Symmetric Matrices by Method of Jacobi Type (with A. Wakulicz), CC PAS Reports 258, 24 pp., 1976

Presentations

Numerous presentations at professional meetings including invited and plenary talks at international conferences.

Selected recent presentations

Enforced Regression Paradigm, ICNPAA World Congress 2018: Mathematical Problems in Engineering, Aerospace and Sciences, Statistical and Stochastic Modeling Session, American University of Armenia, Yerevan, Armenia, July 16-17, 2018 (presented by J. Filus, co-author)

An alternative to classical regression methodology, Workshop on Stochastic dependence and related topics, University of Valparaíso, Chile, October 19, 2017 (invited talk)

Construction of Bivariate Probability Distributions given the Marginals; General Method, 17th Applied Stochastic Models and Data Analysis International Conference (ASMDA2017) Morgan House, London, UK, 6-9 June, 2017 (topic-invited paper)

Two Kinds of Stochastic Dependencies-Bivariate Distributions, Second International Conference on Distributions and Applications ICOSDA 2016, Niagara Falls, Canada, October 14-16, 2016 (topic-invited paper)

Stress Dependence and Enforced Regression Paradigm, 4th Stochastic Modeling Techniques and Data Analysis International Conference SMTDA 2016, University of Malta, Valletta, Malta, June 1-4, 2016 (invited at special session on Data Analysis Methods)

Long memory stochastic processes construction, 10th Workshop on Statistics, Mathematics and Computation WSMC10 and 5th Portuguese-Polish Workshop on Biometry PPWB5, Instituto Politecnico, Tomar, Portugal, May 26-28, 2016 (invited session PPWB5 on Statistical Modeling and Applications)

Construction of Conditional Probability Densities as Enforced Regression, International Conference on Risk Analysis, ICRA 6/RISK 2015, Barcelona, Spain, May 26 - 29, 2015

Stress Dependent Life-time Probability Distributions – The “Enforced Regression” Framework, Mathematics Seminar, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile April 21, 2015

Parameters Estimation Methods for the “Enforced Regression” Problem, 3rd Stochastic Modeling Techniques and Data Analysis International Conference, Lisbon, Portugal, June 11-14, 2014 (invited)

A Stochastic Model of Risk Transfer from the Financial to the Enterprise Sector (with Z. Krysiak), NEIU Third Annual Faculty Research & Creative Activity Symposium, November 16, 2012

Multivariate “pseudo-distributions” as natural extension of the bivariate normal density pattern-Theory, International Conference on Numerical Analysis and Applied Mathematics Conference, Kos, Greece, ICNAAM 2012, September 19-25, 2012 (invited session presentation)

Construction of Bivariate survival probability functions related to ‘micro-shocks’ – ‘micro-damages’ paradigm, The IX Tartu Conference on Multivariate Statistics & XX International Workshop on Matrices and Statistics, Tartu, Estonia, June 26- July 1, 2011

Bivariate Lognormal distribution model of risk factors of heart diseases, International Conference on Risk Analysis – ICRA4; Biomedicine, Environmetrics, Economics, Finance & Reliability, Limassol, Cyprus, May 26-29, 2011 (invited)

Pseudoexponential multivariate probability distributions for bio-medical modeling, International Conference on Risk Analysis – ICRA4; Biomedicine, Environmetrics, Economics, Finance & Reliability, Limassol, Cyprus, May 26-29, 2011 (invited)

Conditionally Specified Multivariate Distributions in Biomedical Applications, The 1st Conference on Applied Probability and Statistical Methods, The 7th Conference on Multivariate Distributions with Applications, Maresias, Brazil, August 8-13, 2010

Weak Stochastic Dependence and Semi-pseudonormal Probability Distributions, International Conference on Statistical Methodologies and Related Topics in conjunction with NZSA Annual Conference, Massey University, Palmerston North, New Zealand, June 29- July 1, 2010 (invited)

On Some Modeling Technique for Stochastic Dependences, Stochastic Modeling Techniques and Data Analysis (SMTDA) International Conference, Chania, Crete, Greece, June 8-11, 2010 (invited)

‘Microshocks-Microdamages’ Type of System Component Interaction; Failure Models, 15th ISSAT International Conference on Reliability and Quality in Design, San Francisco, August, 2009

“Micro-Damages versus Micro-Probability Changes” Phenomena as Pattern Generating Stochastic Dependences with Reliability and Bio-Medical Applications, Third International Conference on Cancer Risk Assessment, Mathematical, Statistical and Computational Methods, ICCRA 3, Porto Heli, Greece, July, 16-18, 2009

Stochastic Models for Reliability of Parallel System with Physical Interactions of its Components, XIIIth International Conference on Applied Stochastic Models and Data Analysis, ASMDA-2009, Vilnius, Lithuania, June 30- July 3, 2009

On Multicomponent System Reliability with “Weakly Dependent” Component Life Times, Mathematical Models in Reliability, MMR 2009, Moscow, Russia, June 2009

Comparing Higher Education Systems in USA and Poland, Gedroyc College of Communication and Media, Warsaw, Poland, March 2009 (invited)

On Comparing Methods of Teaching Mathematics and Operations Research in USA and Poland, Czestochowa University of Technology, Czestochowa, Poland, March 2009 (invited)

Composite Reliability Models for Systems with Two Distinct Kinds of Stochastic Dependences between Their Components' Life Times, 14th ISSAT International Conference on Reliability and Quality in Design, Orlando, FL, August, 2008

A Class of Conditional Probability Distributions and its Application to the Statistical Regression Theory, 7th World Congress in Probability and Statistics, Singapore, July, 2008

Quantitative Measures for the 'Size' of Stochastic Dependences with Applications to 'Life Time' Analysis, International Symposium on Business and Industrial Statistics, ISBIS 2008, Prague, Czech Republic, July, 2008

On Multicomponent System Reliability with Microshocks-Microdamages type of Components' Interaction, The IAENG International Conference on Operations Research (ICOR'08), Hong Kong, March 19-21, 2008

Stochastic Models for Mutual Physical Interaction in the System Reliability Framework, Thirteen ISSAT International Conference on Reliability and Quality in Design, Seattle, WA, August 2007

Method of Parameter Replacement as a Tool in Stochastic Modeling of Multi-component System' Reliability, International Statistical Institute, Lisbon, Portugal, August, 2007

Construction of new multivariate probability densities with system reliability applications, ISBIS-2007 International Society for Business and Industrial Statistics, Azores, Portugal, August 18-20, 2007 (invited)

A Probabilistic Description of Continuous Micro Shocks-Micro Damages Failure Phenomena, Mathematical Models in Reliability, MMR 2007, Glasgow, Scotland, July 2007

A stochastic model of reliability of systems with continuously dependent components, International Conference on Applied Stochastic Models and Data Analysis, Crete, Greece, May 29- June 1, 2007 (invited)

Some stochastic models for reliability of systems with continuously dependent component lifetimes ASMDA2007, International Conference on Applied Stochastic Models and Data Analysis, Crete, Greece, May 29- June 1, 2007

Construction of new multivariate probability distributions with some biomedical applications, Second International Conference on Cancer Risk Assessment, Mathematical, Statistical and Computational Methods, Santorini, Greece, May, 25-27, 2007

On Applications of non-Markovian Stochastic Models for System Repair Service Policies, Sixth Annual ENBIS Conference, Wroclaw, Poland, September, 2006

On two new methods for constructing multivariate probability distributions with system reliability motivations, Twelfth ISSAT International Conference on Reliability and Quality in Design, Chicago, IL, August 2006

On Pseudonormal Markovian Processes, Markov Processes and Related Topics Conference, University of Wisconsin-Madison, July 2006

A stochastic model for reliability of systems with repair, EURO2006, 21st European Conference on Operational Research, Reykjavik, Iceland, July 2006

On Pseudonormal Extension of the Class of Multivariate Normal Probability Distributions, BIOSTAT 2006, Statistical Methods for Biomedical and Technical Systems, Limasol, Cyprus, May 2006

On an Extension of Gumbel Bivariate Exponential Model with Reliability Applications, Fifth International Symposium on Business and Industrial Statistics, Lima, Peru, January 2006

Construction of New n -Variate Probability Densities with Applications, 2005 WNAR-International Biometric Society/ IMS Institute of Mathematical Statistics Meeting, Fairbanks, Alaska, June 2005

On two new methods for constructing multivariate probability distributions with systems reliability motivations, XI International Symposium on Applied Stochastic Models and Data Analysis (ASMDA 2005), Brest, France, May, 2005

New n -Variate Probability Densities as Models for Systems Reliability and Maintenance, School of Mathematics and Statistics Seminar, University of South Australia, April 2005 (invited)

Construction of a New Class of Non-Markovian Stochastic Processes with Applications to Reliability of Systems with Repair, Fourth Int. Symposium on Business and Industrial Statistics (ISBIS 4), Palm Cove, Australia, April 2005 (invited)

Construction of Extensions of the Normal Stochastic Processes: New Wiener Process Generalizations, 55th Binnennial Session of the International Statistical Institute (ISI), Sydney, Australia, April 2005

Construction of New n -Variate Probability Densities With Reliability Application, Dept. of Industrial and Systems Engineering Seminar, University of Wisconsin-Madison, November 2004

Construction of Classes of Nonmarkovian and Markovian Pseudoweibullian and Pseudogamma Stochastic Processes, Hawaii International Conference on Statistics, Mathematics and Related Fields, Honolulu, Hawaii, June 2004

Construction of New Classes of Pseudonormal Markovian Stochastic Processes, 32nd Annual Meeting of the Statistical Society of Canada, Montreal, June 2004

A Construction of New Classes of n -variate Probability Densities, DeMoSTAFI Dependence Modelling: Statistical Theory and its Applications in Finance and Insurance Conference, Quebec, Canada, May 2004

Selected prior presentations

On the n -variate pseudonormal distributions, Seventh ICC on Statistical Sciences, Lahore, Pakistan, 2001 (principal speaker)

Groebner Bases, Institute of Computer Sciences, Polish Academy of Sciences, Warsaw Poland, 1998

Series of eight one-hour talks on fixed point algorithms and their applications during Visiting Professorship, Fern University, Hagen, Germany, 1997

Fixed point algorithm and Groebner bases, Twenty Second Holiday Symposium, New Mexico State University, Las Cruces, NM, 1996

Triangulations and labeling related to fixed points, Twenty First Holiday Symposium, New Mexico State University, 1994

Fixed Point Algorithms, International Conference on Mathematical Algorithms, Nizhny Novgorod, Russia, 1994 (plenary talk)

A combinatorial description of some methods of computation of fixed points, AMS Symposium Mathematics of Computation, Vancouver, Canada, 1993

Applications of fixed point algorithms in optimization, 4th Stockholm Optimization Days, Stockholm, Sweden, 1993

Fixed Point Algorithms and their Applications, Economics Dept. Seminar, University of Kansas, Lawrence, KS, October 1987

Another version of Sperner Lemma, Joint National Meeting of Operations Research Society of America and The Institute of Management Sciences, St. Louis, MO, October 1987

Finding Complete Sets, Second Carbondale Combinatorics Conference, Carbondale, IL, May 1987

Discussion of the Sperner Lemma, NEIU Math Dept. Colloquium, March 1987

Combinatorial view of fixed point computational methods, Industrial and Operations Engineering Dept. Seminar, University of Michigan, December 1986

Fixed Point Algorithms and their Applications, NSF Workshop on Improving the Breath of the Research Community in Operations Research, Wellesley, MA, July 1986

Some properties of a generalized Sperner labelling, Carbondale Combinatorics Conference, Carbondale, IL April 1986

Computation of Economic Equilibria, NEIU Math Dept Colloquium, October 1985

A generalization of Sperner's Lemma, Math. Dept. Colloquium, University of Kansas, 1984

Fixed Point Algorithms, Math. Dept. Colloquium, University of Southampton, England, 1980

A combinatorial description of fixed point algorithms, Applied Math. Dept. Colloquium, Twente University of Technology, the Netherlands, 1981

Fixed point algorithms, Math. Dept. Colloquium, University of Southampton, England, 1980

A combinatorial approach for some classes of fixed point algorithms, Operations Research Seminar, Center for Operations Research and Econometrics, Louvain-la-Neuve, Belgium, 1979

Graphs related to the fixed point algorithms, Tenth International Symposium on Mathematical Programming, Montreal, 1979

Fixed Point Algorithms and some graph problems, Symposium on Fixed Point Algorithms and Complementarity, University of Southampton, Southampton, England, 1979

Other Related Activities

Editorial

Program Committee of *Organization Review (Przegląd Organizacji)* <http://www.przegladorganizacji.pl/>, 2018 – present

Editorial Board of the *Stochastic Modeling and Applications*, 2016-present

Editorial Board of the *Journal of Applied Mathematics and Computational Mechanics*, 2012 – present

Editorial Board of the *Universal Journal of Mathematics and Mathematical Sciences*, 2011-present

Organizing and Scientific Committee of the International Conferences

Member of the Scientific Committee of the 18th Applied Stochastic Models and Data Analysis International Conference (ASMDA2019), June 11 -14, 2019, Florence, Italy

Member of the International Scientific Committees of the *International Conference on Risk Analysis, ICRA 8*, April 23 - 26, 2019, Vienna, Austria

Member of the Scientific Committee of the 5th Stochastic Modeling Techniques and Data Analysis (SMTDA) International Conference, June 12-15, 2018, Chania, Crete, Greece

Member of the Executive and Scientific Committees of the Satellite Meeting ISI - Committee on Risk Analysis and XI Workshop on Statistics, Mathematics and Computation, Lisbon, July 10, Portalegre, July 11-12, 2017, Portugal

Member of the Scientific Committee of the 17th Applied Stochastic Models and Data Analysis International Conference (ASMDA2017) June 6-9, 2017, Morgan House, London, UK

Member of the Executive and International Scientific Committees, and Co-Chair of the Organizing Committee of the *International Conference on Risk Analysis, ICRA 7*, May 3 - 5, 2017, Chicago, IL

Member of the International Scientific Committee of the *International Conference on Risk Analysis, ICRA 6/RISK 2015*, May 26 - 29, 2015, Barcelona, Spain

Member of the Program Committee of the International Conference: New Trends in Management in the 21st Century-Cross-Atlantic Perspective, June 12-13, 2014, Czestochowa University of Technology, Poland.

Member of the Program Committee of the IVth International Scientific Conference on Entrepreneurship Opportunities and Challenges, June 11, 2014, Czestochowa University of Technology, Poland.

Member of the International Scientific Committee of the *International Conference on Risk Analysis, ICRA 5*, May 28-June 1, 2013, Tomar, Portugal

Member of the Scientific Committee of the *International Conference: People and the Value of an Organization-Social, Human and Intellectual Capital*, Czestochowa Univ. of Tech, Poland, June 16-17, 2011

Member of the International Scientific Committee of the *International Conference on Risk Analysis, ICRA 4*, May 26-29, 2011, Limassol, Cyprus

Member of the Scientific Committee of the *International Conference: Human, Work Human, Work, Organization-Humanization of Work and Modern Tendencies in Management*, Czestochowa Univ. of Technology, Poland, June 17-18, 2010

Member of the International Scientific Committee of the *Third International Conference on Cancer Risk Assessment, Mathematical, Statistical and Computational Methods, ICCRA 3*, , July, 16-18, 2009, Porto Heli, Greece

Co-organizer of the conference celebrating the 140th anniversary of the birth of Madame Curie, *Marie Sklodowska-Curie, Woman Scientist Ahead of her Time*, Chicago, IL, November 7-10, 2007; NEIU (Nov. 7-8, 2007), Chicago Public Schools, Curie High School (Nov.9), and ethnic Saturday Schools (Nov.10, 2007)

Organizing Committee of the *Game Theory and Mathematical Economics* Conference, Stefan Banach International Mathematical Center, Polish Academy of Sciences, September 2004

Organizing and Scientific Committee of *the Second International Conference on Mathematical Algorithms*, June, 1995, Nizhny Novgorod, Russia

Chair of the (selected recent) conference sessions at

17th Applied Stochastic Models and Data Analysis International Conference (ASMDA2017) June 6-9, 2017, Morgan House, London, UK

International Conference on Risk Analysis, ICRA 6/RISK 2015, Barcelona, Spain, May 26 - 29, 2015

International Conference on Risk Analysis, ICRA 5, Tomar, Portugal, May 28-June 1, 2013

Organizer of the session *Selected Approaches in Modeling Risk in Health Science and Finance* at ICRA5

International Conference on Risk Analysis – ICRA4; Biomedicine, Environmetrics, Economics, Finance & Reliability, Limassol, Cyprus, May 26-29, 2011

NEIU Faculty Research Symposium, November 2010, 2013-2018

Stochastic Modeling Techniques and Data Analysis (SMTDA) International Conference, Chania, Crete, Greece, June 8-11, 2010

International Conference on Reliability and Quality in Design, San Francisco, August, 2009

The IAENG International Conference on Operations Research (ICOR'08), Hong Kong, March 19-21, 2008

14th ISSAT International Conference on Reliability and Quality in Design, Orlando, FL, August, 2008

ISBIS-2007 International Society for Business and Industrial Statistics, Azores, Portugal, August 18-20, 2007

ASMDA2007, International Conference on Applied Stochastic Models and Data Analysis, Crete, Greece, May 29- June 1, 2007

EURO2006, 21st European Conference on Operational Research, Reykjavik, Iceland, July 2006

Fourth International Symposium on Business and Industrial Statistics (ISBIS 4), Palm Cove, Australia, April 2005

DeMoSTAFI Dependence Modelling: Statistical Theory and its Applications in Finance and Insurance Conference, Quebec, Canada, May 2004

Grants:

National Cancer Institute, U54 Comprehensive Cancer Partnership to Advance Cancer Health Equity Grant, *Chicago Cancer Health Equity Collaborative (ChicagoCHEC)*, partnership of Northeastern Illinois University, University of Illinois in Chicago, and Robert H. Laurie Comprehensive Cancer Center of Northwestern University, 2015-2020, \$17.4 million (Grant Numbers U54CA202995, U54CA202997, and U54CA203000), Co-Chair of the grant's Internal Advisory Committee, 2016-2018, MPI since 2018

National Science Foundation Grant under the **Improving Undergraduate STEM Education (IUSE) program**, project title "*Peer Enhanced Experiential Research in STEM (PEERS)*", co-Principal Investigator, 2014-2017, \$426,738

Chicago Community Trust Strengthening Teacher and School Leader Preparation Planning Grant, NGEMS-*Next Generation Educator for Middle School: Refining STEM with Pedagogical Content and Literacy*, Co-Leader of the Math Team, 2015, \$100,000

NEIU Innovation Grant for the Undocumented Students Project, member of the team preparing the proposal, designing and implementing the project, 2012-14

US Department of Education, *The Illinois Professional Learners Partnership Grant*, NEIU Co-Director and Coordinator, 1999-2002

NEIU Research Community Awards:

Connecting Theoretical Statistical Models to Practical Software Applications: STAT-Shop ~ A Research Collaboration of NEIU Students and Faculty (with C. Ciecierski, Economics and R. Rustagi, Mathematics), 2008-09, \$5,000

Granular Research Community (with Paul Dolan, Richard Delzenero, Physics and Stefan Tsonchev, Chemistry), 2008-09, \$5,000

Granular Research Community (with Paul Dolan and Richard Delzenero, Physics), 2005-2006, \$5,000

NEIU Faculty Research and Scholarly Project Grant, 1995

National Science Foundation Grant for participation and presentation at the NSF Workshop on Improving the Breath of the Research Community in Operations Research, Wellesley College, Wellesley, MA, July 1986

SELECTED ADMINISTRATIVE & SERVICE EXPERIENCE:

Chair, Mathematics, NEIU, 2013-present

Acting Chair, Mathematics, NEIU, Fall 2012

Associate Chair, Mathematics, NEIU, 2010-2012

Associate Dean of the College of Arts and Sciences, NEIU 1997-2000

Acting Associate Dean, College of Arts and Sciences, NEIU, 1996-1997

Co-Director and Coordinator of the Ill. Professional Learners Partnership Grant, 1999-2002

Working Group on Redesigning Program Review, Illinois Board of Higher Education. 1998-2001

Executive Board, Student Center for Science Engagement, NEIU, 2011-12, 2014-2018

Faculty Union - University Professionals of Illinois (UPI) NEIU Chapter Treasurer, 2003-2012

NEIU/UPI Task Force on Workload, Chair 2003-04

NCATE Accreditation Steering Committee, 1996- 1998

College Coordinator of Program Review, 1996-97

**General Education Assessment Pilot Study: Coordinator, Spring 1996;
Chair of the Committee, 1995**

NEIU/UPI Task Force on Equity/Market, 1996-97

**Council of Faculties of the Board of Governors Universities, 1993-95
Committee on Student Outcomes, Assessment and Admissions, Chair 1994-95
Secretary, 1995**

University Committee Service - selected examples:

University Planning and Budget Council, 2002-2007, 2008-2014, 2015-2018, Chair 2018-2021

Faculty Senate: Chair 2017-2018, member 1992-96, 2000-2006; 2007- 2013, 2014- 2017;
Secretary, 1994-96

Faculty Senate Steering Committee, 1994-96; 2000-2003; 2012-14, 2016-2018
Senate Election Committee, 2002-05

Faculty Senate Committee on Faculty Governance in Budgetary Matters, 1994-95

Faculty Council on Academic Affairs: member,1992-96, 2000-2003; Secretary, 1994-96;
Chair, 2001-2003

Mathematics Competency Task Force, Chair 2004-05

The Task Force influenced a revision in service courses offered by Math. Dept.

Strategic Planning Team, 2008-09

Faculty Council on Finance and Administrative Affairs 2006-08

NEIU representative to the UPI House of Delegates, 2003-2012

International Programs Advisory Committee 2002-2013

I was instrumental in developing an exchange program between NEIU and Poland
Founding Co-President (in partnership with University of Warsaw, Poland) of
PEACER (Polish and European Academic Center for Exchange and Research) at
NEIU, 2017

Founding Member of the International Programs Faculty Advisory Board, 2010

University Personnel Committee, 1994-96, 2004-07

Faculty Senate Committee on Faculty Governance in Budgetary Matters, 1994-95

Faculty Council on Academic Affairs: member, 1992-96, 2000-2003; Secretary, 1994-96;
Chair, 2001-2003

Faculty Council on Finance and Administrative Affairs 2006-08

General Education Committee, 1993-2000

General Education Assessment Committee, Co-Chair 1996-97

Enrollment Management Committee, 1997-2000

Academic Standards Committee

Grade Appeal Committee

Graduate College Advisory Committee, 1993-95, 2004-2006

Graduate College Program Review Committee, 1993-96

College of Arts and Sciences Assembly, Chair, 1994-96, 2000-2004

Search and Screen for Provost and Vice President for Academic Affairs, Secretary, 1996

Search and Screen Committee for Vice President for Finance and Administration, 1998

Search and Screen Committee for Computer Science Faculty, 2012-13

Minority Students Mentoring Program, 1987- present

Faculty Sponsor for Student's Research Symposium, 1993- present

Faculty Advisor for the NEIU Polish Students Association, 2000-present

Co-Chair of the Polish-American Heritage Committee, 2000-present

Involves extensive cooperation with community and fund raising for scholarships

Faculty Mentor for graduate student in the Applied Mathematics from Northwestern
University in the Preparing Future Faculty program.

College Assessment Task Force, 1997-2000

University Day Planning Committee, 1997

Departmental Service – selected examples from different periods:

Departmental Personnel Committee, Chair

Major Advisor

M.S. Advisor

M.S. Comprehensive Exam Committee

Service Courses Coordinator

Search and Screen Committee for faculty position, 1996-97, 2009-10, 2012-13

Departmental By-Laws Committee, Co-Chair

Department Union Representative

Selected Community Service:

Kosciuszko Foundation, Chicago Chapter President, 2006-present

Kosciuszko Foundation National Advisory Council, 2006-present

Polish Women's Alliance of America, District I President, 2007-2017

Council of Educators in Polonia, President, 2003-present

SELECTED AWARDS and RECOGNITIONS

Polish Heritage Award in Education from the City Bank, December 2009

Cavalier's Cross of an Order of Merit of the Republic of Poland awarded by the President of the Republic of Poland presented in recognition of exceptional contributions to international cooperation, 2007

Award of Excellence for commitment and dedication to education from Maria Pappas, Cook County Treasurer, 2006

Diploma of Gratitude from the Polish-American Cooperation of the Institute of International Relations, Warsaw University, Poland for engagement and effort in developing the Program of Students' Exchange, 2004

NEIU Faculty Excellence Award for the academic years: 1994-95, 1995-96, 2001-02, 2002-03

Award of Ministry of Science and Higher Education, Poland for the book "Linear Algebra" (in Polish) published in 1985 by the Polish Scientific Publishers, 1986